In this Office Action the Examiner has rejects Claims 2-10, 25 and 12-16 under 35 U.S.C. § 103(a) as being unpatentable over the Etherphone system as disclosed by Rangan and Vin and further in view of the "login," "utmp," "talk" and "who" command of the UNIX operating system disclosed in the Man Pages of the 4'th Berkeley Distribution 1991 available on the Internet at http://www.de.freebds.org.

Specifically, the Examiner rejects these claims as follows:

As per claim 2, Rangan disclose the Etherphone is a conferencing system comprising:

workstations having audio and video reproduction capabilities [p. 1396 fig. 1];

AV path for carrying AV signals [fig. 1];

AV conference manager [p. 1397 Macaw];

a participant locator [apparent from p. 1398 "if a participant moves to new location, Macaw reroutes ... to new location"]. Rangan does not specifically disclose the system is configured to associated a participant with only each workstation at which the participant logs in. Rangan discloses that a connection is established by a connect command having a participant ID parameter [p. 1397 col. 2 last paragraph]. Rangan does not disclose how the system locates the workstation associated with the participant ID.

The Etherphone system's workstations use UNIX. It is well known in the art that UNIX requires a user to login and it keeps track of which terminal(s) the user has logged in [see the man page for 'login' and 'utmp']. It is also known that UNIX as a primitive data conference in the form of a 'talk' command that take a user name as a parameter and sends a talk request to only terminals that the user is currently logged in [see the man page for 'talk' and 'who']. Hence, it is apparent that the Etherphone system would have been configured to associate a participant (ID) with each workstation at which the participant logged-in in order to establish the conference connection. It would have been obvious for one of ordinary skill in the art to associate a participant with only each workstation at which the participant logs in because it would enable the participant to receive/answer the conference call.

As per claim 25, it is rejected under similar rationale as for claim 2 above.

As per claims 3 and 12-13, Rangan and Vin do not specifically disclose a service directory of the workstation audio video capability. Vin discloses the Etherphone system support conferencing using common capabilities or mixed capabilities by determining audio video capabilities of the workstations [p. 72 col. 3]. Hence, it would have been obvious or one of ordinary skill in the art to have directory for determining audio, video capabilities of the workstation participating in the conference.

As per claim 4, Rangan disclose switches to establish teleconference between participants [p. 1396 fig. 1 "Matrix switch"]. The number of switches and participant supported would have been a matter of design choice. It would

have been obvious for one of ordinary skill in the art to have the appropriate number of switches to support a desired number of participants.

As per claim 5, Rangan does not disclose Wide Area network (WAN) switches. However, it is well known in the art to have WAN switches (gateway) for connecting workstations over geographically dispersed locations.

As per claim 6, it is rejected under similar rationale as for claim 3 above.

As per claim 7, it is apparent that the conference manager would choose reproduce devices based on availability.

As per claims 8-9. Rangan discloses user interface art to provide user selecting capability of reproduction devices [p. 1397 col. 1 last paragraph].

As per claims 10 and 15, the reference does not specifically disclose format conversion. However, it is well known in the art to have converter for different AV signal encoding. It would have been well within the level of one of ordinary skill in the art to have converter for converting the AV format.

As per claim 14, Rangan disclose interfacing to external video production device [p. 1396 fig. 1 Optical disc].

As per claim 16, the Etherphone system has digital data path [Ethernet].

There are a number of reasons as to why these § 103(a) rejections cannot be maintained. They relate to improper modification of the primary references, Rangan and Vin, with the Man Pages of the UNIX operating system (UNIX reference). The remarks that follow are directed specifically at independent Claims 2 and 25. However, they apply equally well to the other rejected claims (i.e., Claims 3-10 and Claims 12-16), since they all depend on either Claims 2 or 25.

To establish a *prima facie* case of obviousness, there must be "some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference...."[1] Despite this M.P.E.P. directive, however, the Examiner's arguments repeatedly and improperly modify the Rangan and Vin references with the UNIX reference to support his § 103(a) rejections of the claims.

The Examiner's argument presupposes that because workstations in the Rangan and Vin systems may use the UNIX operating system, the Etherphone system "apparent[ly] would have been configured to associate a participant (ID) with each workstation at which the participant logged-in in order to establish the conference connection." In making this assumption, the Examiner's

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[1] M.P.E.P. § 2143 (Rev. 3, July 1997).

argument entirely ignores the connection software disclosed in the Rangan and Vin references.[2] This connection software is, in fact, the software that controls the conference connection; it is not the UNIX operating system.

The core of the Rangan and Vin conference software is the Connection Manager. The Connection Manager further includes two software agents: Finch, which provides a window-based interface from which a user can create and join a conference; and Macaw, which manages as user's video devices (e.g., camera and monitor). The Connection Manager, therefore, is the software that supports and controls the centralized negotiation of call states among video conference participants. It cooperates with its two agents to control conference connections. The Examiner's argument, however, ignores this fact and modifies the Rangan and Vin references with the UNIX reference even though there is no suggestion or motivation to do so.

It is because the Rangan and Vin references lack the requisite suggestion or motivation to modify that the Examiner can only resort to grounding the § 103(a) rejection on what "would have been" within the ordinary skill in the art.[3]

In addition to proposing an improper modification relating to the establishment of a conference connection, the Examiner's argument suffers from the same misunderstanding in addressing the participant locating aspect of the current invention. Claim 2 of the present invention claims a teleconferencing system that, among other things, "is configured to associate a participant with each workstation at which the participant may log in and to route a videoconference call, for that participant, to at least each workstation at which the participant is logged in." Claim 5 is similar, including these Claim 2 functions as steps in a method. The Examiner acknowledges that

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[2] Applicants have continuously and consistently distinguished the present invention from the teachings of Vin and Rangan throughout the prosecution of this application. Applicants in no way relinquish those arguments; they continue to apply in the context in which they appeared. The current issue here involves the propriety of modifying Rangan and Vin with the UNIX reference.

[3] The M.P.E.P. instructs that "[a] statement that modifications of the prior art to meet the claimed invention *would have been*" within the ordinary skill in the art at the time the claimed invention was made, because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references." (citing, *Ex parte Levengood*, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. & Interf. 1993). (emphasis supplied).

"Rangan does not disclose how the system locates the workstation" associated with a participant as do Claims 2 and 25. So, the Examiner proposes a modification of the Rangan (and Vin) reference with the UNIX reference mentioned above. For example, after referring to the "login" and "utmp" functions of the UNIX operating system, the Examiner concludes that it "would have been obvious for one of ordinary skill in the art to associate a participant with only each workstation at which the participant logs in because it would enable the participant to receive/answer the conference call." This argument is flawed, for the same reason it was when it was presented in reference to establishing a conference connection, i.e., because it incorrectly assumes that the Rangan and Vin references can be properly modified with the UNIX reference. To repeat, there is no suggestion or motivation in Rangan and Vin to modify its teachings as they relate to participant locating in videoconferencing. Consequently, Applicants respectfully believe it was error to modify the Rangan and Vin references with the UNIX reference.

There is yet a third reason why the Examiner's proposed modification of the Rangan and Vin references with the UNIX reference is impermissible. The M.P.E.P. states that "[i]f [a] proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification."[4] There can be no suggestion or motivation to modify Rangan and Vin with the UNIX reference, since to do so would render the Vin and Rangan system unsatisfactory for its intended purpose.

In the § 103(a) rejection of the claims, the Examiner refers to the "talk" command disclosed in the UNIX reference. In making this reference, the Examiner states in the Office Action that "[i]t is...known that UNIX [h]as a primitive data conference in the form of a 'talk' command...." (page 4, 11/25/97 Office Action). Without commenting on the propriety of characterizing the "talk" command as a "data conference," Applicants point out that the "talk" command only operates between two parties (i.e. does not support multipoint communication).[5] Thus, if the conference system of Rangan and Vin were modified with the UNIX reference, the Rangan and

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[4] M.P.E.P. § 2143.01 (Rev. 3, July 1997).
[5] The Man Pages of the UNIX reference defines the "talk" command as "a visual communication program which copies lines from your terminal to that of another user.

Vin system would be limited to communication between two parties. From the foregoing, Applicants respectfully believe that modifying the Rangan and Vin system with the "talk" command of UNIX conflicts with the intended purpose of the Rangan and Vin system -- that is to provide a conferencing system capable of supporting communication among more than two users (i.e. multipoint conferencing).

In summary, Applicants believe that the Examiner has presented arguments, in the presentation of the § 103(a) rejections of the claims, which improperly modify the Rangan and Vin references with the UNIX reference. The foregoing provides at least three reasons why Applicants believe such modification was improper. For these reasons, Applicants respectfully request that the § 103(a) rejections be withdrawn.

The Examiner also rejects Claims 17, and 19-21 under 35 U.S.C. § 103(a) as being unpatentable over Rangan and Vin and further in view of U.S. Patent 5,315,633 to Champa. These claims all depend on either of independent Claims 2 or 25. As Claims 2 and 25 are in a condition for allowance then so too should Claims 17 and 19-21 be in a condition for allowance as depending from allowable base claims.[6]

The Examiner also rejects Claims 18, 22-24 and 26-47 under 35 U.S.C. § 103(a) as being unpatentable over Rangan, Vin, U.S. Patent 5,315,633 to Champa and further in view of IBM Technical Disclosure Bulletin, vol. 34, no. 7a, Dec. 1991. Specifically, the Examiner rejects these claims as follows:

> As per claim 18, Champa does not specifically disclose a data conference manager using network protocol to control the video conference. IBM disclosure teaches a data conference manager [Conference server] controlling video conference [tuners, Rfmod, Codec] using data network [LAN]. Hence, it would have been obvious for one of ordinary skill in the art to have data manager using network protocol to control AV conference because it would have enable integration of data and AV conferences.

In addition to lack of multipoint capabilities, the "talk" command only allows *typing* and does not allow input and exchange of other types of information, for example, information of a graphical nature.

[6] The M.P.E.P. states that "[i]f an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." (citing, *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988)).

As per claim 22, it is rejected under similar rationales as for claim 18 above.

As per claims 23-24 they are rejected under similar rationales as for claims 19-20 above.

As per claims 26, it is rejected under similar rationales as for claims 1+16+18 above.

As per claim 27, it is rejected under similar rationale as for claim 4 above.

As per claim 28, it is well known in the art to have WAN switches (gateway) for connecting workstations over geographically dispersed locations. Champa teaches geographic dispersed switch and AV path over Wide Area Network [fig. 5 T1 line 79 and Trans Ocean line 83].

As per claim 29, Rangan teaches Etherphone system having

an AV switch [fig. 1 Matrix switch] for receiving and routing AV signal;

AV reproduction device with audio/video capabilities. [apparent for fig. 1];

a directory of AV reproduction device and its associated capabilities [apparent from p.1397 col. 2].

As per claim 30, Vin discloses the Etherphone system having AV conference manager select the AV reproduction device according to capabilities [p. 27 col. 3].

As per claim 31, Rangan discloses external video producing device [p. 1396, fig. 1].

As per claim 32, Rangan discloses user interface art to provide user selecting capability of reproduction devices [p. 1397 col. 1 last paragraph].

As per claim 33, the reference does not specifically disclose supporting different signal format standard. It is well known in the art to have converter for different AV signal encoding. It would have been well within the level of one of ordinary skill in the art to have converter for converting the AV format and support plural signal format standard.

As per claim 34, the Etherphone system has digital data path [Ethernet];

As per claim 35, Rangan discloses managing the video conference by communication over the data path [apparent from p. 1397-1398]. The IBM TDB v.34 teaches controlling the video conference by communication transmitted over the data path [p. 337 lines 10-17].

As per claim 36, it is rejected under similar rationale for claim 17 above.

As per claims 37-38, the frames rates are inherent characteristic of the system. The particular frame rate would have been a matter of design choice depending upon the quality of video playback required.

As per claims 39, it is rejected under similar rationales as for claims 1+16+18 above.

As per claim 40, Vin discloses the Etherphone system having AV conference manager select the AV reproduction device according to capabilities [p. 27 col. 3].

As per claim 41, Rangan discloses the Etherphone system having AV reproduction device [fig. 1 Optical disk] and selecting reproduction service to the workstation.

As per claim 42, it is apparent that there is an interface between the AV conference manager and the reproduction device.

As per claim 43, the reference does not specifically disclose supporting different signal format standard. It is well known in the art to have converter for different AV signal encoding. It would have been well within the level of one of ordinary skill in the art to have converter for converting the AV format and support plural signal format standard.

As per claim 44, Champa teaches compressing AV signal, receiving AV signal at a third location [switch in fig. 5] and routing to the second location without decompressing at the third location.

As per claim 45, Rangan disclose managing the video conference by communication over the data path [apparent from p. 1397-1398]. The IBM TDB v.34 teaches controlling the video conference by communication transmitted over the data path [p. 337 lines 10-17].

As per claims 46-47, the frames rates are inherent characteristic of the system. The particular frame rate would have been a matter of design choice depending upon the quality of video playback required.

Claims 18 and 22-24 depend from either of independent Claims 2 or 25. Claims 2 and 25 are both in a condition for allowance based on the foregoing remarks. Thus, Claims 18 and 22-24 should also be in a condition for allowance. (See note 6.)

Independent Claims 26 and 39 were also rejected in the Office action "under similar rationales as for claims 1+16+18...." Applicants assume that the Examiner meant "under similar rationales as for claims 2+16+18...." since there is no Claim 1 in the application. Above, Applicants explained how and why Claims 2, 16, and 18 are all in a condition for allowance. Because the Examiner rejects Claims 26 and 39 on "similar rationales" as used to reject Claims 2, 16 and 18, the same arguments presented by Applicants in response to the rejection of Claims 2, 16 and 18 above also apply to Claims 26 and 39. Following the arguments, it was concluded that Claims 2, 16 and 18 were in a condition for allowance. It follows, therefore, therefore that Claim 26 should also be in a condition for allowance. (See note 6)

Claims 27-38 and Claims 40-47 depend from Claims 26 and 39 respectively. As such, they too should be in a condition for allowance. (See note 6).

Finally, it is submitted that the attached rule 132 affidavit is evidence of the uniqueness and inventiveness of the claimed invention and that the arguments against non-obviousness, presented above, are indeed correct.
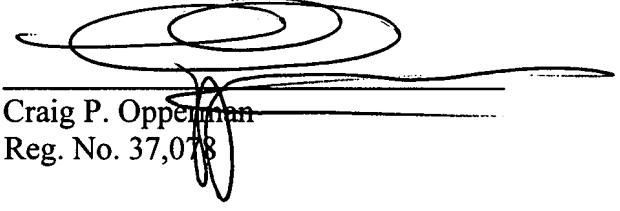
CONCLUSION

For all the above reasons, Applicant's request allowance of the claims in this application at the Examiner's earliest convenience. Should the Examiner believe a further conference will expedite the allowance, contact with the undersigned is requested.

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Respectfully submitted,

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